UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
MAIS, MARK A

ART UNIT	PAPER NUMBER
2664	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/835,867	LOPPONEN ET AL.
	Examiner	Art Unit
	Mark A. Mais	2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-48* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *13 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *6 September 2002*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on September 6, 2002 was filed after

the mailing date of the Application on June 13, 2001. The submission is in compliance with the

provisions of 37 CFR 1.97. Accordingly, the examiner considered the information disclosure

statement.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

3. Claim 36 recites the limitations (a) "said mobile communications system," (b) "said sending

user," and (c) "said receiving user." There is insufficient antecedent basis for these limitations in

the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Sigler et al. (USP 5,717,830).

6. With regard to claim 1, Sigler et al. discloses a method for a packet mode group voice communication in a communications system **[group communication (trunking, col. 16, lines 4-6) in a network over multiple networks, e.g. LAN/WAN, e.g., col. 3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44, line 54 and col. 49, line 25]** comprising the steps of

providing a group server on top of the said communications system **[the NOC (col. 3, line 9-21) works with the Group Controller, col. 5, lines 49-64]**

providing said group server with individual addresses of group members in at least one group communication group **[Closed User Group (col. 6, lines 56-60), is set up, col. 16, lines 37-39]**

sending voice packets from one of said group members to said group server, each voice packet being addressed to said at least one group, forwarding said voice packets individually to each receiving one of said group members on the basis of said individual addresses **[col. 15, lines 57-62; each member can hear one member in the group]**.

With regard to claim 2, Sigler et al. discloses forwarding said voice packets individually via user servers provided on top of the said mobile communications system, said user servers managing user specific voice packet streams to and from users **[interpreted as Base FECs, col. 4, lines 12-20]**.

7. With regard to claim 3, Sigler et al. discloses a method for packet mode group voice communication in a communications system [**group communication (trunking, col. 16, lines 4-6) in a network over multiple networks, e.g. LAN/WAN, e.g., col. 3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44, line 54 and col. 49, line 25**], comprising the steps of

providing a group server [**the NOC (col. 3, line 9-21) works with the Group Controller, col. 5, lines 49-64**],

providing said group server with individual addresses of group members of a group communication group [**Closed User Group (col. 6, lines 56-60), is set up, col. 16, lines 37-39**],

creating an individual logical connection from each group member to said group server by means of outband signaling [**NET IDs are established for each group, col. 16, lines 52-55; GC-S and FEC-S channels are signaling channels, col. 18, lines 43-45, col. col. 22, lines 37-39**]

starting a speech item in said group by sending a leader packet from one of said group members to said group server over said individual logical connection, each leader packet containing the identifier of the respective group member [**col. 23, lines 54-60; push-to-talk occurs and the group NET ID (as well as the mobile's ID] is sent along with the signaling unit (SU) packet, Fig. 25, col. 19, lines 43-65**]

said group server either i) rejecting said started speech item, or ii) granting the started

speech item to said one group member and forwarding said leader packet and subsequent voice

packets individually to each receiving one of said group members in said group on the basis of

said individual addresses [**the mobile's ID from the SU is sent to the other CUG members,**

Fig. 25; col. 17, lines 38-45].

8. With regard to claim 4, Sigler et al. discloses allocating an uplink bearer for said one group

member in an air interface of said communications system prior to said one group member sends

said leader packet and prior to said granting of said speech item, and allocating a downlink

bearer in an air interface for each receiving group member in response to receiving a leader

packet forwarded by said group server and addressed to said respective group member [**mobile**

receives inbound and outbound channel assignments for the each group, col. 16, lines 62-

65].

9. With regard to claim 5, Sigler et al. discloses a method of managing speech items in a

communications system having a packet mode group voice communication feature [**group**

communication (trunking, col. 16, lines 4-6) in a network over multiple networks, e.g.

LAN/WAN, e.g., col. 3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44, line 54

and col. 49, line 25], comprising the steps of

providing a group server for serving a group communication group [**the NOC (col. 3,**

line 9-21) works with the Group Controller, col. 5, lines 49-64],

granting a speech item to one group member of said group communication group [**push-
to-talk occurs and the group NET ID (as well as the mobile's ID] is sent along with the
signaling unit (SU) packet, Fig. 25, col. 19, lines 43-65**],

setting a first timer to measure a predetermined idle period in response to said granting
[**setting the loss of status timer where the loss of speaker status timeout occurs if no voice
packets are sent (idle), col. 23, lines 19-22**],

resetting said first timer each time a voice packet is received from said one of said group
members to said group server [**if voice packets are received, the loss of speaker status timer is
reset, col. 23, lines 19-22**],

ending said granted speech item if said first timer expires indicating that said
predetermined idle period has elapsed from said granting or from last reception of a voice packet
from said one group member [**setting the loss of status timer where the loss of speaker status
timeout occurs if no voice packets are sent (idle), col. 23, lines 19-22**].

10. With regard to claim 6, Sigler et al. discloses ending said granted speech item if a maximum
allowed period of time has elapsed from the granting [**while transmitting, if the mobile does
not receive voice packets, and the loss of speaker status timer times out, causing the mobile
to stop transmitting, col. 23, lines 39-41**].

11. With regard to claim 7, Sigler et al. discloses that one group member sends a trailer packet having a predetermined payload in order to indicate the end of sending, the group server ends said speech item in response to receiving said trailer packet [**sends a PTT release, col. 24, lines 18-24**].

12. With regard to claim 8, Sigler et al. discloses a method of managing traffic streams in a communications system having a packet mode group voice communication feature [**group communication (trunking, col. 16, lines 4-6) in a network over multiple networks, e.g. LAN/WAN, e.g., col. 3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44, line 54 and col. 49, line 25**], comprising the steps of

proviiding a server for managing traffic streams addressed to a user who is active in at least one group communication group or in a one-to-one communication [**the NOC (col. 3, line 9-21) works with the Group Controller, col. 5, lines 49-64; the user-server is interpreted as a Base FEC, col. 4, lines 12-20; private point-to-point communications, col. 7, lines 11-14**],

receiving at said user specific server a first voice packet stream related to a first group or one-to-one communication and forwarding said first voice packet stream to said respective user [**the NOC (col. 3, line 9-21) works with the Group Controller, col. 5, lines 49-64; the user-server is interpreted as a Base FEC, col. 4, lines 12-20**],

monitoring at said user specific server continuity of said first voice packet stream [**the FEC manages contention, col. 16, lines 65-67; the MET monitors the FEC control channel, col. 22, lines 52-53**],

receiving at said user specific server at least one further voice packet stream related to at

least one further group or one-to-one communication **[the voice calls to and from members of**

the CUG are collected at the FES, col. 21, lines 48-50],

forwarding no one of said at least one further voice packet streams to said user if said

first voice packet data stream is continuous **[no voice is transferred after the lost speaker**

status timer times out—meaning a continuous voice packet stream, col. 24, lines 12-16],

forwarding one of said at least one further voice packet streams to said user if said first

voice traffic stream has been discontinued for a predetermined period of time **[lost speaker**

status timer will not time out as long as it receives a voice packet (meaning no continuous

stream), thus, resetting the timer (col. 23, 19-22), interpreted as having at least one break in

PTT, e.g., 3.5 sec, col. 24, lines 12-14].

13. With regard to claim 9, Sigler et al. discloses setting a timer to measure said predetermined

period of time when a first packet of said first voice packet stream is forwarded to said user

[setting the loss of status timer where the loss of speaker status timeout occurs if no voice

packets are sent (idle), col. 23, lines 19-22];

resetting said timer each time a new packet of said first voice packet stream is forwarded

to said user **[if voice packets are received, the loss of speaker status timer is reset, col. 23,**

lines 19-22],

determining said first voice packet stream to be discontinued if said timer expires [**lost speaker status timer will not time out as long as it receives a voice packet (meaning no continuous stream), thus, resetting the timer (col. 23, 19-22), interpreted as having at least one break in PTT, e.g., 3.5 sec, col. 24, lines 12-14**].

14. With regard to claim 10, Sigler et al. discloses the method according to claim 8 or 9, said method comprising a further step of interrupting said first voice packet stream immediately when a voice packet stream having higher priority is received at said server [**priority contention, col. 9, lines 46-51, col. 36, lines 45-49**].

15. With regard to claim 11, Sigler et al. discloses a server system for providing a packet mode group communication service for a communications system [**group communication (trunking, col. 16, lines 4-6) in a network over multiple networks, e.g. LAN/WAN, e.g., col. 3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44, line 54 and col. 49, line 25**], said server system comprising a group server provided on top of said communications system [**the NOC (col. 3, line 9-21) works with the Group Controller, col. 5, lines 49-64**], said group server further comprising

a data memory storing individual addresses of group members in at least one group communication group [**Fig. 3, data hub**],

a mechanism receiving voice packets from said group members, each received voice packet containing information identifying the communication group which the respective packet is addressed to [**the voice calls to and from members of the CUG are collected at the FES, col. 21, lines 48-50; col. 23, lines 54-60, push-to-talk occurs and the group NET ID (as well as the mobile's ID] is sent along with the signaling unit (SU) packet, Fig. 25, col. 19, lines 43-65]**,

a mechanism for granting a speech item to one group member per a communication group in turn [**push-to-talk occurs and the group NET ID (as well as the mobile's ID] is sent along with the signaling unit (SU) packet, Fig. 25, col. 19, lines 43-65]**,

a mechanism unicasting each voice packet received from said group member having a speech item in a group communication group separately to each receiving member in said respective group communication group on the basis of said individual addresses [**the NOC (col. 3, line 9-21) works with the Group Controller, col. 5, lines 49-64; the user-server is interpreted as a Base FEC, col. 4, lines 12-20; private point-to-point communications, col. 7, lines 11-14]**.

15. With regard to claim 12, Sigler et al. discloses that the information identifying the communication group identify a port assigned to said group in said group server [**NET IDs are established for each group, col. 16, lines 52-55; thus, this is interpreted as part of identifying the CUG group's NET ID]**.

16. With regard to claim 13, Sigler et al. discloses a call processing server provided on top of said mobile communications system, said call processing server being responsible for control plane management of the group communications in said group server **[NCC, col. 1, lines 27-34]**.

17. With regard to claim 14, Sigler et al. discloses a first timer responsive to said granting the start of the measurement of a predetermined idle period from said granting **[setting the loss of status timer where the loss of speaker status timeout occurs if no voice packets are sent (idle), col. 23, lines 19-22]**,

a mechanism resetting said first timer each time a voice packet is received from said one group member having said granted speech item **[if voice packets are received, the loss of speaker status timer is reset, col. 23, lines 19-22]**,

a mechanism ending said granted speech item if said first timer expires indicating that said predetermined idle period has elapsed from said granting or from the last reception of a voice packet from said one group member **[setting the loss of status timer where the loss of speaker status timeout occurs if no voice packets are sent (idle), col. 23, lines 19-22]**.

18. With regard to claim 15, Sigler et al. discloses a mechanism establishing an individual logical connection from each group member to said group server by means of outband signaling carried out between said call processing server and each group member **[NET IDs are established for each group, col. 16, lines 52-55; GC-S and FEC-S channels are signaling channels, col. 18, lines 43-45, col. col. 22, lines 37-39]**, and

wherein said mechanism granting a speech item further comprises a mechanism receiving

a leader packet starting a speech item in said group from one of said group members to said

group server over respective said individual logical connection , said leader packet containing

identifier of the respective group member [push-to-talk occurs and the group NET ID (as well

as the mobile's ID] is sent along with the signaling unit (SU) packet, Fig. 25, col. 19, lines

43-65,

a mechanism that either i) rejects said started speech item, or ii) grants said started speech

item to said one group member and forwards said leader packet and subsequent voice packets

individually to each receiving one of said other members in said group on the basis of said

individual addresses [the mobile's ID from the SU is sent to the other CUG members, Fig.

25; col. 17, lines 38-45].

19. With regard to claim 16, Sigler et al. discloses that the voice packets are VOIP packets [it is

inherent that the packets being sent would VOIP packets, if the packets were, in fact, IP or

TCP/IP packets].

20. With regard to claim 17, Sigler et al. discloses a group management server providing a user

interface for a remote creation and management of group communications group in said server

system [NCC, col. 1, lines 27-34].

21. With regard to claim 18, Sigler et al. discloses a user interface is based on one of the World

Wide Web and Wireless Application Protocol (WAP) technologies **[is inherent that the user**

interface would have been a wireless protocol, *see also* **col. 35-40]**.

22. With regard to claim 19, Sigler et al. discloses that the group server is interconnected to said

mobile communications network by an Internet Protocol (IP) based network **[communication**

(trunking, col. 16, lines 4-6) in a network over multiple networks, e.g. LAN/WAN, e.g., col.

3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44, line 54 and col. 49, line 25].

23. With regard to claim 20, Sigler et al. discloses a server system for providing a packet mode

group communication service for a communications system **[group communication (trunking,**

col. 16, lines 4-6) in a network over multiple networks, e.g. LAN/WAN, e.g., col. 3, line 64 to

col. 4, line 3; which include IP and TCP/IP, col. 44, line 54 and col. 49, line 25], said server

system comprising a group server provided on top of said communications system **[the NOC**

(col. 3, line 9-21) works with the Group Controller, col. 5, lines 49-64], said group server

further comprising

a mechanism which identifies and authenticates a source of group communication **[col.**

26, lines 54-67],

a mechanism which controls that only one group member in a group talks at a time **[col.**

19, lines 65-67, only one mobile can talk at a time; col. 19, lines 60-65],

a mechanism which checks active group members in a group to which voice packets from

a currently talking group member are destined to and generates from an incoming voice packet

an outgoing packet to be forwarded separately to each of said active group members [col. 19,

lines 60-65, the PTT SU request packet allows voice packets to be forwarded to the CUG] ,

and

a mechanism which selects from possible multiple incoming traffic streams destined to

one group member the one which is to be forwarded to said one group member [one mobile can

be the recipient of a priority message while in the midst of receiving "regular" voice traffic,

thereby receiving the priority stream over the "regular" stream, priority contention, col. 9,

lines 46-51, col. 36, lines 45-49].

24. With regard to claim 21, Sigler et al. discloses a server system for providing a packet mode

group communication service for a communications system , said server system comprising

at least one first server providing group specific communications functions [group

communication (trunking, col. 16, lines 4-6) in a network over multiple networks, e.g.

LAN/WAN, e.g., col. 3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44, line 54

and col. 49, line 25], said first server further comprising

a data memory storing individual addresses of group members in at least one

group communication group [Fig. 3, data hub],

a mechanism receiving voice packets from said group members, each received

voice packet containing information identifying the communication group which the

respective packet is addressed to **[the voice calls to and from members of the CUG are**

collected at the FES, col. 21, lines 48-50; col. 23, lines 54-60, push-to-talk occurs and

the group NET ID (as well as the mobile's ID] is sent along with the signaling unit

(SU) packet, Fig. 25, col. 19, lines 43-65],

a mechanism for granting a speech item to one group member per communication

group in turn **[push-to-talk occurs and the group NET ID (as well as the mobile's ID]**

is sent along with the signaling unit (SU) packet, Fig. 25, col. 19, lines 43-65],

a mechanism unicasting each voice packet received from said group member

having a speech item in a group communication group separately to each receiving

member in said respective group communication on the basis of said individual addresses

[the NOC (col. 3, line 9-21) works with the Group Controller, col. 5, lines 49-64; the

user-server is interpreted as a Base FEC, col. 4, lines 12-20; private point-to-point

communications, col. 7, lines 11-14],

a second server providing user-specific communications functions, any group related

communication from a user managed by said second server being routed first to said second

server and then forwarded to an appropriate first server, and any unicast voice packet from said

at least one first server being routed first to said second server prior to sending the voice packet

to the respective user **[the NOC (col. 3, line 9-21) works with the Group Controller, col. 5,**

lines 49-64; the user-server is interpreted as a Base FEC, col. 4, lines 12-20; private point-

to-point communications, col. 7, lines 11-14].

25. With regard to claim 22, Sigler et al. discloses that the information identifying the

communication group identifies a port assigned to said group in said group server **[NET IDs are**

established for each group, col. 16, lines 52-55; thus, this is interpreted as part of

identifying the CUG group's NET ID].

26. With regard to claim 23, Sigler et al. discloses a server system for providing a packet mode

group communication service for a communications system , said server system comprising

at least one group server providing group specific communications functions **[group**

communication (trunking, col. 16, lines 4-6) in a network over multiple networks, e.g.

LAN/WAN, e.g., col. 3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44, line 54

and col. 49, line 25], said group server further comprising

a mechanism which controls that only one group member in a group talks at a

time **[col. 19, lines 65-67, only one mobile can talk at a time; col. 19, lines 60-65]**,

a mechanism which checks active group members in a group to which voice

packets from a currently talking group member is destined to and generates from an

incoming voice packet an outgoing packet to be forwarded separately to each of said

active group members **[col. 19, lines 60-65, the PTT SU request packet allows voice**

packets to be forwarded to the CUG],

a user server providing user-specific communications functions on a user plane

[the NOC (col. 3, line 9-21) works with the Group Controller, col. 5, lines 49-64; the

user-server is interpreted as a Base FEC, col. 4, lines 12-20; private point-to-point

communications, col. 7, lines 11-14],

said user server further comprising a mechanism which identifies and

authenticates a source of group communication **[col. 26, lines 54-67]**,

a mechanism which selects from possible multiple incoming traffic streams

destined to one group member the one which is to be forwarded to said one group

member **[one mobile can be the recipient of a priority message while in the midst of**

receiving "regular" voice traffic, thereby receiving the priority stream over the

"regular" stream, priority contention, col. 9, lines 46-51, col. 36, lines 45-49].

27. With regard to claim 24, Sigler et al. discloses a group call processing server provided on

top of the said communications system, said group call processing server being responsible for

control plane management of the group communications in said group server **[NCC, col. 1, lines**

27-34], and

a user call processing server provided on top of said communications system, said user

call processing server being responsible for control plane management of the communications in

said user server **[the NOC (col. 3, line 9-21) works with the Group Controller, col. 5, lines**

49-64; the user-server is interpreted as a Base FEC, col. 4, lines 12-20; private point-to-

point communications, col. 7, lines 11-14].

28. With regard to claim 25, Sigler et al. discloses a first timer responsive to said granting the

start of the measurement of a predetermined idle period from said granting **[setting the loss of**

status timer where the loss of speaker status timeout occurs if no voice packets are sent

(idle), col. 23, lines 19-22],

a mechanism resetting said first timer each time a voice packet is received from said one

group member having said granted speech item **[if voice packets are received, the loss of**

speaker status timer is reset, col. 23, lines 19-22],

a mechanism ending said granted speech item if said first timer expires indicating that

said predetermined idle period has elapsed from said granting or from the last reception of a

voice packet from said one group member **[setting the loss of status timer where the loss of**

speaker status timeout occurs if no voice packets are sent (idle), col. 23, lines 19-22].

29. With regard to claim 26, Sigler et al. discloses a mechanism establishing an individual

logical connection between each group member and said user server by means of outband

signaling carried out between said user call processing server and each group member **[NET IDs**

are established for each group, col. 16, lines 52-55; GC-S and FEC-S channels are signaling

channels, col. 18, lines 43-45, col. col. 22, lines 37-39], and wherein said mechanism which

manages that only one group member in a group talks at a time further comprises

a mechanism receiving a request for a speech item in said group from one of said group

members to said group server over respective said individual logical connection, said request

being in form of a leader packet containing identifier of the respective group member **[push-to-**

talk occurs and the group NET ID (as well as the mobile's ID] is sent along with the

signaling unit (SU) packet, Fig. 25, col. 19, lines 43-65, a mechanism that either i) rejects said

request for a speech item, or ii) grants the speech item to said one group member and forwards

said leader packet and subsequent voice packets individually to each receiving one of said other

members in said group **[the mobile's ID from the SU is sent to the other CUG members, Fig.**

25; col. 17, lines 38-45]..

30. With regard to claim 27, Sigler et al. discloses that the voice packets are VOIP packets **[it is**

inherent that the packets being sent would VOIP packets, if the packets were, in fact, IP or

TCP/IP packets].

31. With regard to claim 28, Sigler et al. discloses a group management server providing a user

interface for a remote creation and management of group communications group in said server

system **[NCC, col. 1, lines 27-34]**.

32. With regard to claim 29, Sigler et al. discloses that the user interface is based on one of the

World Wide Web and Wireless Application Protocol (WAP) technologies **[is inherent that the**

user interface would have been a wireless protocol, *see also* col. 35-40].

33. With regard to claim 30, Sigler et al. discloses that the group server is interconnected to said

mobile communications network by an Internet Protocol (IP) based network **[communication**

(trunking, col. 16, lines 4-6) in a network over multiple networks, e.g. LAN/WAN, e.g., col.

3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44, line 54 and col. 49, line 25].

35. With regard to claim 31, Sigler et al. discloses a server system for providing a packet mode

group communication service for a communications system , said server system comprising

at least one group server providing group specific communications functions in a user

plane **[group communication (trunking, col. 16, lines 4-6) in a network over multiple**

networks, e.g. LAN/WAN, e.g., col. 3, line 64 to col. 4, line 3; which include IP and TCP/IP,

col. 44, line 54 and col. 49, line 25], said group server further comprising

a data memory storing individual addresses of group members in at least one

group communication group **[Fig. 3, data hub]**,

a mechanism receiving voice packets from said group members, each received

voice packet containing information identifying the communication group which the

respective packet is addressed to **[the voice calls to and from members of the CUG are**

collected at the FES, col. 21, lines 48-50; col. 23, lines 54-60, push-to-talk occurs and

the group NET ID (as well as the mobile's ID] is sent along with the signaling unit

(SU) packet, Fig. 25, col. 19, lines 43-65],

a mechanism for granting a speech item to one group member per communication

group in turn [**push-to-talk occurs and the group NET ID (as well as the mobile's ID]**

is sent along with the signaling unit (SU) packet, Fig. 25, col. 19, lines 43-65],

a mechanism unicasting each voice packet received from said group member

having a speech item in a group communication group separately to each receiving

member in said respective group communication on the basis of said individual addresses

[**the NOC (col. 3, line 9-21) works with the Group Controller, col. 5, lines 49-64; the**

user-server is interpreted as a Base FEC, col. 4, lines 12-20; private point-to-point

communications, col. 7, lines 11-14],

a user server providing user-specific communications functions on a user plane, any

group related communication from a user managed by said user server being routed first to said

user server and then forwarded to an appropriate group server, and any unicast voice packet from

said at least one group server being routed first to said user server prior to sending the voice

packet to the respective user [**the NOC (col. 3, line 9-21) works with the Group Controller,**

col. 5, lines 49-64; the user-server is interpreted as a Base FEC, col. 4, lines 12-20; private

point-to-point communications, col. 7, lines 11-14],

a group call processing server responsible for control plane management of the group

communications in said group server [**NCC, col. 1, lines 27-34]**, and

a user call processing server responsible for control plane management of the

communications in said user server [**the NOC (col. 3, line 9-21) works with the Group**

Controller, col. 5, lines 49-64; the user-server is interpreted as a Base FEC, col. 4, lines 12-

20; private point-to-point communications, col. 7, lines 11-14].

36. With regard to claim 32, Sigler et al. discloses a device of managing speech items in a

communications system having a packet mode group voice communication feature **[group**

communication (trunking, col. 16, lines 4-6) in a network over multiple networks, e.g.

LAN/WAN, e.g., col. 3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44, line 54

and col. 49, line 25], comprising

a mechanism granting a speech item to one group member in group communication

group at time **[push-to-talk occurs and the group NET ID (as well as the mobile's ID] is sent**

along with the signaling unit (SU) packet, Fig. 25, col. 19, lines 43-65],

a first timer responsive to said granting for starting to measure a predetermined idle

period from said granting **[setting the loss of status timer where the loss of speaker status**

timeout occurs if no voice packets are sent (idle), col. 23, lines 19-22],

a mechanism resetting said first timer each time a voice packet is received from said one

of said group members **[if voice packets are received, the loss of speaker status timer is reset,**

col. 23, lines 19-22],

a mechanism ending said granted speech item, if said first timer expires indicating that

said predetermined idle period has elapsed from said granting or from last reception of a voice

packet from said one group member **[setting the loss of status timer where the loss of speaker**

status timeout occurs if no voice packets are sent (idle), col. 23, lines 19-22].

37. With regard to claim 33, Sigler et al. discloses a device for managing traffic streams

addressed to a user who is active in at least one group communication group or in one-to-one

communication in a mobile communications system having a packet mode group voice

communication feature **[group communication (trunking, col. 16, lines 4-6) in a network over**

multiple networks, e.g. LAN/WAN, e.g., col. 3, line 64 to col. 4, line 3; which include IP and

TCP/IP, col. 44, line 54 and col. 49, line 25], said device comprising

a first mechanism capable of receiving at least two voice packet streams related to at least

two group or one-to-one communications **[one mobile can be the recipient of a priority**

message while in the midst of receiving "regular" voice traffic, thereby receiving the

priority stream over the "regular" stream, priority contention, col. 9, lines 46-51, col. 36,

lines 45-49],

a second mechanism monitoring continuity of said forwarded voice packet streams, said

first mechanism forwarding no other one of said received voice packet streams related to at least

one further group or one-to-one communication, if said first voice packet stream is continuous

[no voice is transferred after the lost speaker status timer times out—meaning a continuous

voice packet stream, col. 24, lines 12-16], and selecting and forwarding other one of said voice

packet streams to said user if said previous selected and forwarded voice traffic stream has been

discontinued for a predetermined period of time **[lost speaker status timer will not time out as**

long as it receives a voice packet (meaning no continuous stream), thus, resetting the timer

(col. 23, 19-22), interpreted as having at least one break in PTT, e.g., 3.5 sec, col. 24, lines

12-14].

38. With regard to claim 34, Sigler et al. discloses a device according to claim 33, wherein said

monitoring mechanism further comprises

a timer which is set to measure said predetermined period of time when a first packet of

said selected voice packet stream is forwarded to said user **[setting the loss of status timer**

where the loss of speaker status timeout occurs if no voice packets are sent (idle), col. 23,

lines 19-22],

a mechanism resetting said timer each time a new packet of said selected voice packet

stream is forwarded to said user **[if voice packets are received, the loss of speaker status timer**

is reset, col. 23, lines 19-22],

a mechanism determining said selected voice packet stream to be discontinued if said

timer expires **[lost speaker status timer will not time out as long as it receives a voice packet**

(meaning no continuous stream), thus, resetting the timer (col. 23, 19-22), interpreted as

having at least one break in PTT, e.g., 3.5 sec, col. 24, lines 12-14].

39. With regard to claim 35, Sigler et al. discloses a device according to claim 33, said device

further comprising a mechanism interrupting said first voice packet stream immediately when a

voice packet stream having higher priority is received **[priority contention, col. 9, lines 46-51,**

col. 36, lines 45-49].

40. With regard to claim 36, Sigler et al. discloses a method for establishing a one-to-one voice

communication in a communications system, comprising the steps of

providing a communications server on top of the said mobile communications system

[group communication (trunking, col. 16, lines 4-6) in a network over multiple networks,

e.g. LAN/WAN, e.g., col. 3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44,

line 54 and col. 49, line 25; the NOC (col. 3, line 9-21) works with the Group Controller, col.

5, lines 49-64; the user-server is interpreted as a Base FEC, col. 4, lines 12-20; private

point-to-point communications, col. 7, lines 11-14],

creating an individual logical connection between said communication server and each

user having an active communication service in said communication server **[NET IDs are**

established for each group, col. 16, lines 52-55; GC-S and FEC-S channels are signaling

channels, col. 18, lines 43-45, col. col. 22, lines 37-39],

starting a communication by sending a leader packet from a user to said communication

server over respective said individual logical connection, each leader packet containing identifier

of said sending user **[push-to-talk occurs and the group NET ID (as well as the mobile's ID]**

is sent along with the signaling unit (SU) packet, Fig. 25, col. 19, lines 43-65] and

said communication server either i) rejects said started speech item, or ii) grants the

started speech item to said sending user and forwards said leader packet and subsequent voice

packets to said receiving user on the basis of said received identifier of said receiving user **[the**

mobile's ID from the SU is sent to the other CUG members, Fig. 25; col. 17, lines 38-45].

41. With regard to claim 37, Sigler et al. discloses inquiring an IP address of said receiving user, from a communication control server on the basis of said received identity of said receiving user, forwarding said leader packet and subsequent voice packets to said IP address of said receiving user [col. 23, lines 54-60; **push-to-talk occurs and the group NET ID (as well as the mobile's ID] is sent along with the signaling unit (SU) packet, Fig. 25, col. 19, lines 43-65; it is inherent that the packet could be an IP packet (therefore including the IP address)]**.

42. With regard to claim 38, Sigler et al. discloses that the sending user sends the leader packet and the subsequent packets to a specific port assigned for one-to-one communication in said communication server [**NET IDs are established for each group, col. 16, lines 52-55; thus, this is interpreted as part of identifying the NET ID]**.

43. With regard to claim 39, Sigler et al. discloses a subscriber equipment for communications

system having a packet mode group voice communication service, said subscriber equipment

comprising mechanisms for packet data communication over said mobile a communications

system, a group communication application on top of said mechanisms **[group communication**

(trunking, col. 16, lines 4-6) in a network over multiple networks, e.g. LAN/WAN, e.g., col.

3, line 64 to col. 4, line 3; which include IP and TCP/IP, col. 44, line 54 and col. 49, line 25;

the NOC (col. 3, line 9-21) works with the Group Controller, col. 5, lines 49-64; the user-

server is interpreted as a Base FEC, col. 4, lines 12-20; private point-to-point

communications, col. 7, lines 11-14], said application having a mechanism establishing a

logical packet connection to a group communication server , said application having a

mechanism sending and receiving voice packets to and from said group communications server

[NET IDs are established for each group, col. 16, lines 52-55; GC-S and FEC-S channels

are signaling channels, col. 18, lines 43-45, col. col. 22, lines 37-39; mobile receives inbound

and outbound channel assignments for the each group, col. 16, lines 62-65].

44. With regard to claim 40, Sigler et al. discloses

a push-to-talk switch **[col. 19, line 52]**,

a mechanism which, reactive to activation of said push-to-talk switch by a user, sends a

leader packet followed by voice packets to said logical connection and thereby starts a speech

item **[col. 23, lines 54-60; push-to-talk occurs and the group NET ID (as well as the mobile's**

ID] is sent along with the signaling unit (SU) packet, Fig. 25, col. 19, lines 43-65],

said mechanism, reactive to receiving an indication that a speech item is not granted to

the user is received from said group communication server after sending said leader packet, stops

sending further packets and stops the speech item although the push-to-talk switch is still

activated **[the mobile's ID from the SU is sent to the other CUG members, Fig. 25; col. 17,**

lines 38-45],

said mechanism, reactive to deactivation of said push-to-talk switch by the user, stops the

speech item and stops sending further voice packets **[sends a PTT release, col. 24, lines 18-24]**.

45. With regard to claim 41, Sigler et al. discloses that the mechanism, reactive to deactivation

of said push-to-talk switch by the user, sends a trailer packet to said group communication server

over said logical connection and thereby stops the speech item **[sends a PTT release, col. 24,**

lines 18-24].

46. With regard to claim 42, Sigler et al. discloses that the indication is a reception of a voice or

leader packet originating from another user in a group communication group after sending said

leader packet **[priority contention, col. 9, lines 46-51, col. 36, lines 45-49]**.

47. With regard to claim 43, Sigler et al. discloses that the indication is the reception of a voice

packet having predetermined payload type after sending said leader packet **[priority contention,**

col. 9, lines 46-51, col. 36, lines 45-49].

48. With regard to claim 44, Sigler et al. discloses that the mechanism, which in response to the reception of said indication, alerts the user of the fact the speech item was not granted **[indicates call failure to user, col. 24, line 58]**.

49. With regard to claim 45, Sigler et al. discloses that the mechanism, reactive to deactivation of said push-to-talk switch by the user, sends a trailer packet to said group communication server over said logical connection and thereby stops the speech item **[sends a PTT release, col. 24, lines 18-24]**.

50. With regard to claim 46, Sigler et al. discloses that the equipment further comprising a mechanism giving an audible indication to the user start speaking after the activation of said push-to-talk switch **[tone, col. 16, line 65-67]**.

51. With regard to claim 47, Sigler et al. discloses that the indication mechanism comprises a timer enabling said audible indication after a predetermined period of time has expired from said activation of said push-to-talk switch **[indicates stop of transmission, col. 23, line 39-41]**.

52. With regard to claim 48, Sigler et al. discloses that the indication mechanism gives said audible indication after one of the connection setup phases has been reached; 1) after an uplink bearer has been allocated, 2) after said leader packet has been sent, 3) after said group communication server has processed said leader packet and granted a speech item, 4) after a

receiving party has acknowledged said leader packet **[is inherent that audible indications**

occur for a trunking system; *see also* **claims 46 and 47 above]**.

Conclusion

53. The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure:

(a) Kent (USP 5,650,995), Console dispatch in an extended multisite radio
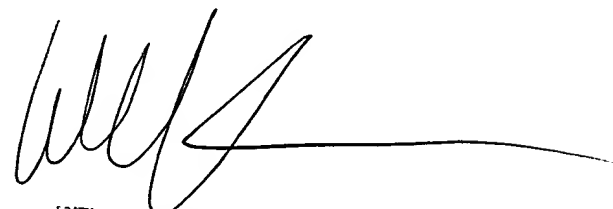
communications network.

54. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Mark A. Mais whose telephone number is (571) 272-3138. The examiner

can normally be reached on 6:00-4:30.

55. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization

where this application or proceeding is assigned is 571-273-8300.

56. Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 20, 2005

WELLINGTON CHIN
ADVISORY PATENT EXAMINER